ABSTRACT

The invention is related to optimization of data transmission in TCP/IP networks, particularly to problems created by transmission of encrypted traffic. According to the invention, an indication of a TCP ACK being carried in the encrypted payload of a IP datagram is added in the IP header of the datagram. The indication may simply be a flag indicating the presence of a TCP acknowledgment. The indication may also contain the acknowledgment number, which allows processing of the encrypted traffic based on the acknowledgment number. In IPv4 datagrams, the indication may be inserted as an extra option field. In IPv6 datagrams, the indication may be inserted as an extension header.

Figure 7